HP DL380 Gen10

HP ProLiant DL380 Gen10 Server User Manual

Comprehensive guide for setup, operation, and maintenance.

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your HP ProLiant DL380 Gen10 server. Please read this document thoroughly before using the server to ensure proper functionality and safety.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent injury and damage to the equipment:

- Ensure the server is connected to a properly grounded power outlet.
- Do not operate the server with covers removed unless performing maintenance as instructed.
- Avoid blocking ventilation openings to prevent overheating.
- Disconnect all power cords before moving or servicing the server.
- Handle internal components with care, especially when installing or removing modules.
- Wear an anti-static wrist strap when handling internal components to prevent electrostatic discharge (ESD) damage.

3. PACKAGE CONTENTS

Verify that all components are present upon unpacking:

- HP ProLiant DL380 Gen10 Server Unit
- Power Cords (quantity may vary)
- Rack Mounting Kit (if included with your configuration)
- Documentation (this manual, warranty information)

4. HARDWARE OVERVIEW

4.1 Front Panel

The front panel provides access to drive bays, status indicators, and the power button.

Figure 4.1: Front view of the HP ProLiant DL380 Gen10 server. This image displays the server's front, featuring multiple hot-swappable drive bays, typically for SAS/SATA drives, and front panel indicators for power and system status.

- **Drive Bays:** Hot-pluggable bays for SAS/SATA hard drives or SSDs.
- **Power Button/LED:** Controls server power and indicates power status.
- **Health LED:** Indicates overall system health (green for normal, amber for minor issues, red for critical issues).
- **UID Button/LED:** Unique Identification button to locate the server in a rack.

4.2 Rear Panel

The rear panel contains power supply units, network ports, and other I/O connections.

Figure 4.2: Rear view of the HP ProLiant DL380 Gen10 server. This image shows the back of the server, highlighting the redundant power supply units, various network interface ports, USB ports, and video output.

- **Power Supply Units (PSUs):** Redundant, hot-pluggable power supplies.
- **Network Ports:** Multiple Ethernet ports for network connectivity.
- **iLO Port:** Dedicated port for HP Integrated Lights-Out (iLO) remote management.
- **USB Ports:** For connecting peripherals.
- **Video Port:** VGA output for display.
- **PCIe Expansion Slots:** For adding expansion cards.

4.3 Internal Components

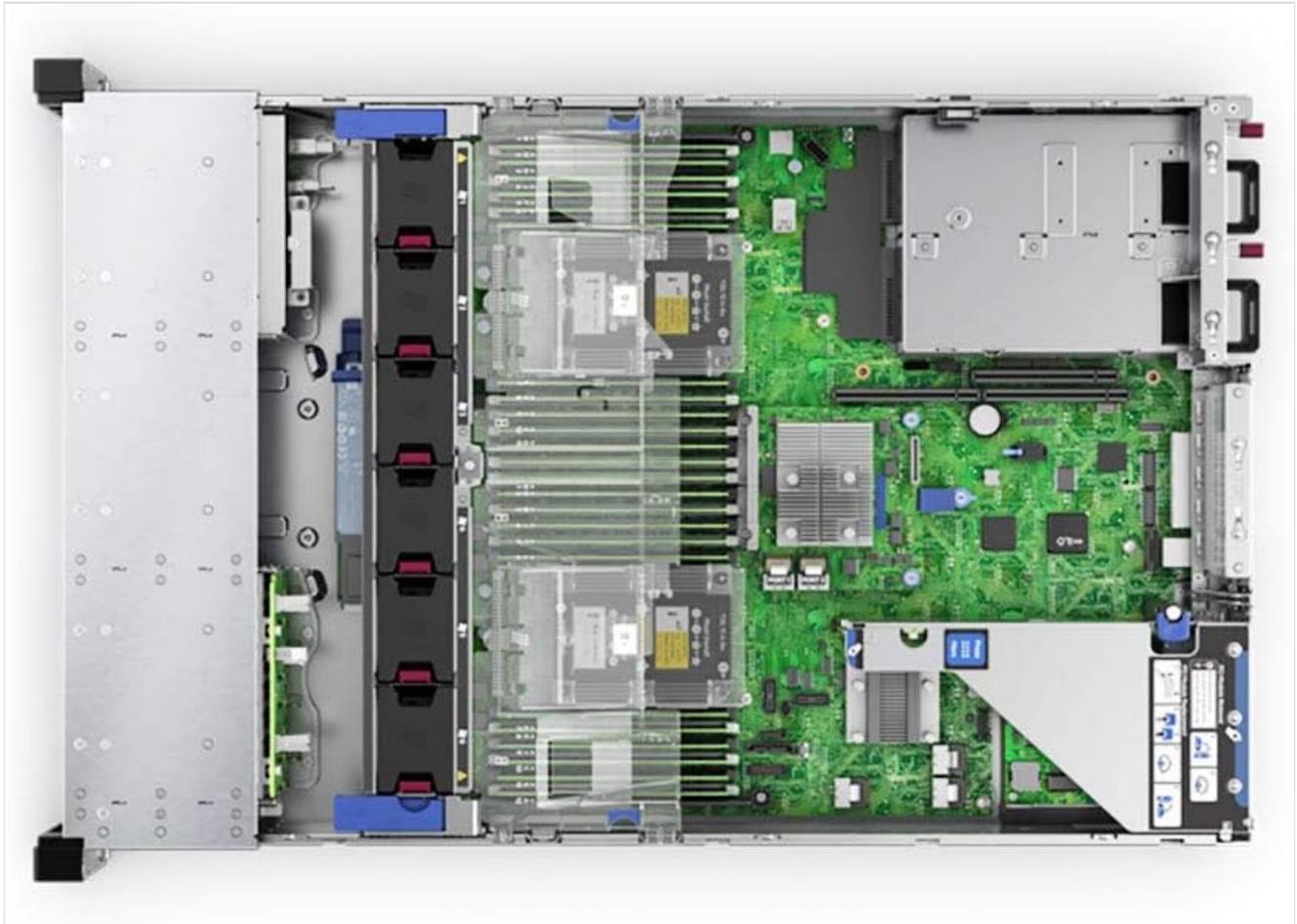Understanding the internal layout is crucial for maintenance and upgrades.

Figure 4.3: Internal view of the HP ProLiant DL380 Gen10 server. This image provides a top-down view of the server's interior, revealing the dual CPU sockets with heatsinks, numerous DIMM slots for RAM, and the overall motherboard layout.

- **Processors (CPUs):** Dual Intel Xeon Silver 4110 processors.
- **Memory (RAM):** Multiple DIMM slots for DDR4 registered memory.
- **RAID Controller:** HP Smart Array P408i-a with 2GB FBWC.
- **Fans:** Hot-pluggable system fans for cooling.

5. SETUP

5.1 Rack Installation (Optional)

If using a rack, follow the instructions provided with your rack mounting kit. Ensure proper airflow and cable management.

5.2 Initial Connections

1. Connect the power cords from the server's PSUs to grounded power outlets.
2. Connect network cables to the desired Ethernet ports.
3. (Optional) Connect a monitor, keyboard, and mouse to the rear panel ports for local access.
4. Connect the iLO port to your management network.

5.3 Power On and Initial Configuration

1. Press the power button on the front panel.
2. Observe the boot process. Access the BIOS/UEFI setup utility (typically by pressing F9 during boot) to configure boot order, date/time, and other system settings.

3. Configure the HP Smart Array P408i-a RAID controller for your storage needs. Refer to the HP Smart Array documentation for detailed instructions on creating logical drives.

4. Install your desired operating system.

5. Configure network settings for the operating system.

6. OPERATING THE SERVER

6.1 Local Operation

Once the operating system is installed, you can interact with the server directly using a connected monitor, keyboard, and mouse.

6.2 Remote Management (HP iLO 5)

HP Integrated Lights-Out (iLO) 5 provides comprehensive remote management capabilities, allowing you to manage the server from a web browser or command-line interface, even when the operating system is not running.

- Access iLO by entering its IP address in a web browser.
- Use iLO to monitor server health, power cycle the server, access virtual media, and update firmware.
- Refer to the HP iLO 5 documentation for detailed usage instructions.

6.3 Shutting Down the Server

Always perform a graceful shutdown through the operating system to prevent data corruption. If necessary, the power button can be used for a forced shutdown (hold for 4 seconds).

7. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your server.

- **Firmware Updates:** Regularly check for and apply the latest firmware updates for BIOS/UEFI, iLO, RAID controller, and other components from the HP support website.
- **Component Replacement:**

  - **Hard Drives:** Hot-swappable drives can be replaced without powering down the server if configured in a RAID array. Follow RAID controller instructions for drive replacement.
  - **Memory Modules:** Power down the server and disconnect power cords before adding or replacing RAM. Observe ESD precautions.
  - **Power Supplies:** Hot-pluggable PSUs can be replaced individually while the server is running, provided the other PSU is functional.

- **Cleaning:** Periodically clean dust from air vents and internal components using compressed air. Ensure the server is powered off and disconnected from power before cleaning.
- **Data Backup:** Implement a regular data backup strategy to protect against data loss.

8. TROUBLESHOOTING

This section provides solutions to common issues. For more complex problems, consult HP support documentation.

- **Server does not power on:**

  - Verify power cords are securely connected to both the server and the power outlet.

- Check power supply LEDs for status.
- Ensure the power outlet is functional.

- **No video output:**

  - Ensure the monitor is connected and powered on.
  - Try connecting to the iLO remote console.

- **Operating system not booting:**

  - Check boot order in BIOS/UEFI.
  - Verify RAID array status in the Smart Array controller utility.

- **System Health LED is amber/red:**

  - Check iLO for detailed error messages and system logs.
  - Common causes include fan failure, memory errors, or drive issues.

9. SPECIFICATIONS

Key technical specifications for the HP ProLiant DL380 Gen10 server:

Component	Specification
Processors	Dual Intel Xeon Silver 4110 (8-Core, 2.1GHz, 8MB Cache each)
Memory	64GB DDR4 PC4-19200 2400MHz Registered DIMM
Storage	7.2TB (4 x 1.8TB) 10K 12Gb/s SAS 2.5" HDDs
RAID Controller	HP Smart Array P408i-a 12Gb/s with 2GB FBWC
Remote Management	HP ProLiant Integrated Lights Out (iLO) 5 Standard
Power Supplies	Redundant Power Supplies
Form Factor	Rack-mountable (2U)

10. WARRANTY AND SUPPORT

This product is offered as an Amazon Renewed item. It has been professionally inspected and tested to work and look like new.

- **Amazon Renewed Guarantee:** If not satisfied with the purchase, renewed products are eligible for replacement or refund under the Amazon Renewed Guarantee. Refer to Amazon's Renewed program terms for details.
- **Technical Support:** For technical assistance, consult the official HP support website for the ProLiant DL380 Gen10 series. You may also contact the seller, TekBoost Certified, for support related to your renewed product.